ABSTRACT

A method for dynamically measuring the spatial position and orientation of a slider used in a magnetic disk drive operates by directing one or more beams of light through a microscope to an interface between the slider and the magnetic disk. The light beam reflected from the slider-disk interface is used to derive the spacing between the surface of the disk and the multiple points on the slider so that the spatial position of the slider can be determined. The number of measured points on the slider is at least equal to the number of degrees of freedom of the slider so that the spatial position of the slider can be fully determined.